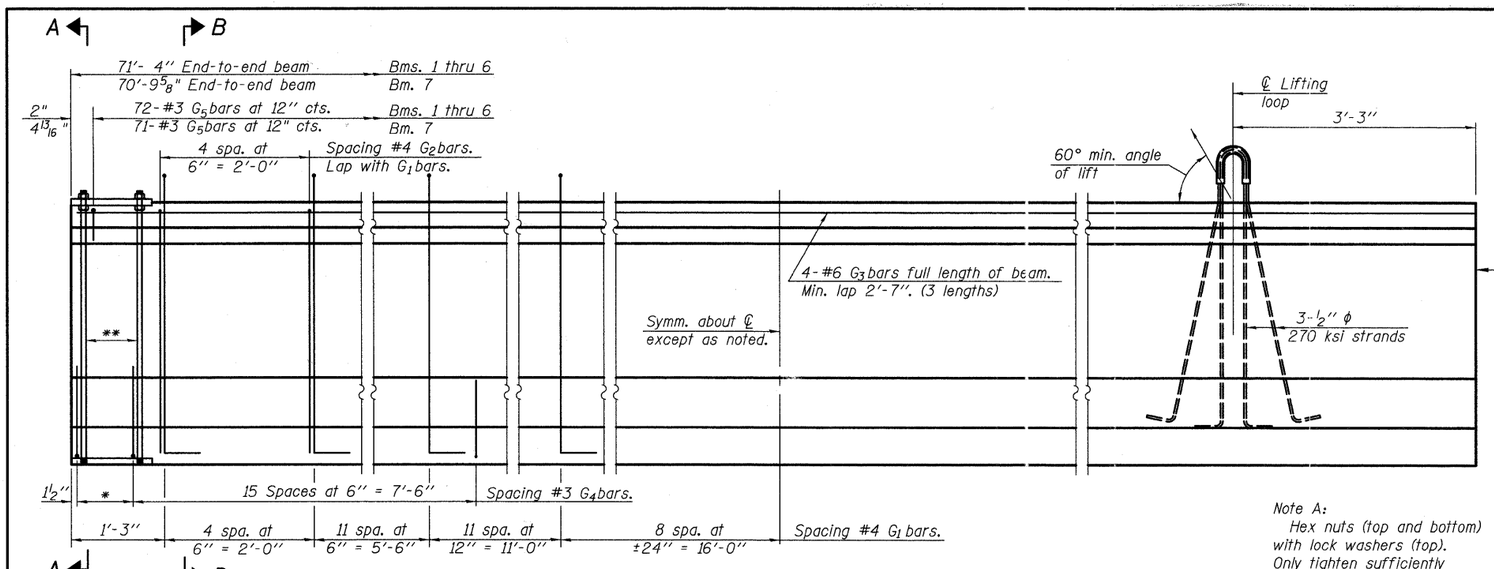
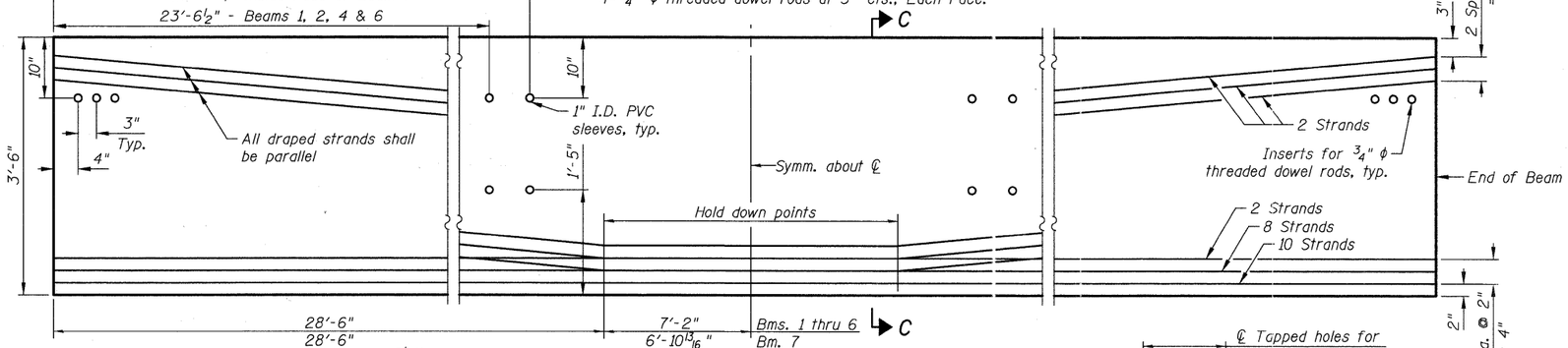


ELEVATION OF BEAM

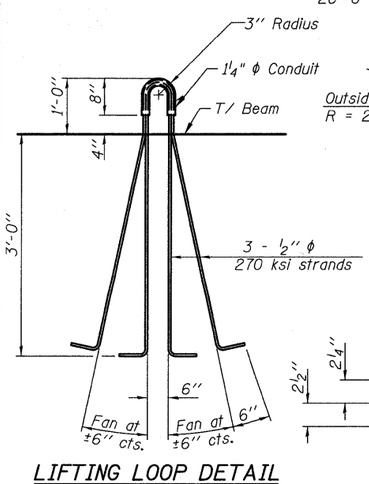
(Showing reinforcement & dimensions)

*3 spaces at 3" = 9".
**4-3/4" ϕ threaded dowel rods at 3" cts., Each Face.

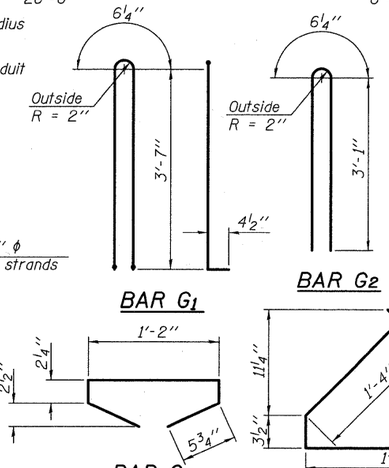


ELEVATION OF BEAM

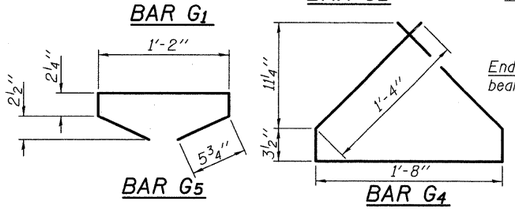
(Showing prestressing steel)



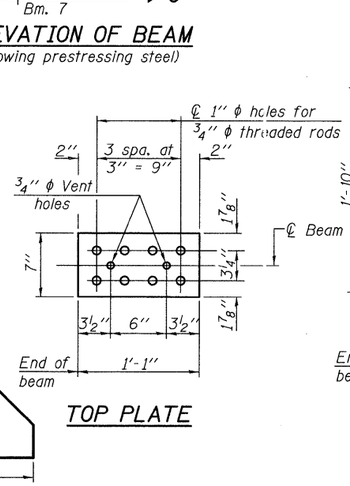
LIFTING LOOP DETAIL



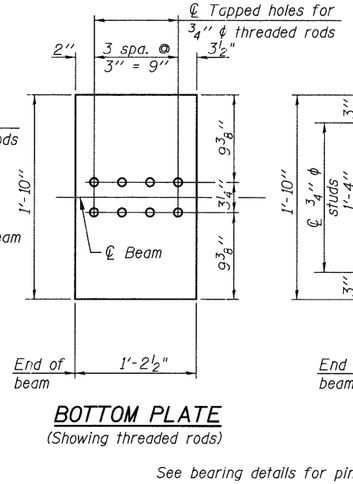
BAR G1 — BAR G2



BAR G5 — BAR G4

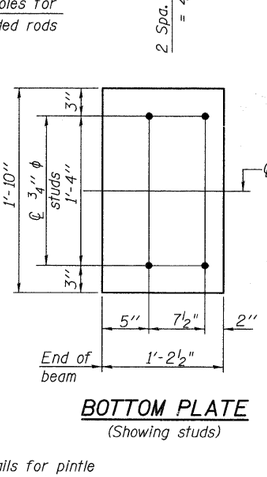


TOP PLATE



BOTTOM PLATE

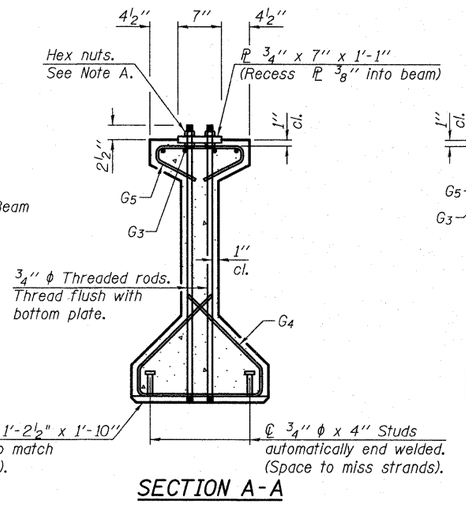
(Showing threaded rods)



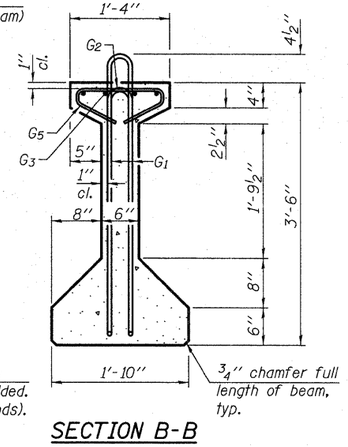
BOTTOM PLATE

(Showing studs)

See bearing details for pintle hole locations when required.

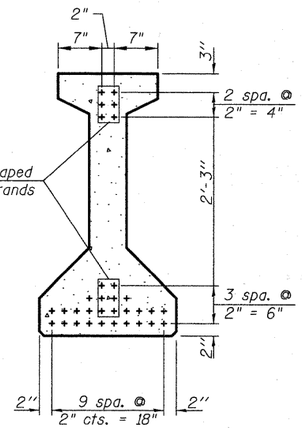


SECTION A-A



SECTION B-B

Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



SECTION C-C

***BAR LIST BEAMS 1 THRU 6 ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	69	#4	8'-5"	⊓L
G_2	10	#4	6'-8"	⊓
G_3	12	#6	25'-5"	—
G_4	38	#3	4'-11"	⊔
G_5	72	#3	2'-6"	⊔

***For information only

***BAR LIST BEAM 7

Bar	No.	Size	Length	Shape
G_1	69	#4	8'-5"	⊓L
G_2	10	#4	6'-8"	⊓
G_3	12	#6	25'-5"	—
G_4	38	#3	4'-11"	⊔
G_5	71	#3	2'-6"	⊔

***For information only

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	499

NOTES

Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).

A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling.

The top and bottom plates shall be AASHTO M270 Grade 50.

The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized.

Threaded rods shall be ASTM F 1554 Grade 55.

Required release strength, f'ci, shall be 6,000 psi.

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DESIGNED - D. Atkins		REVISED -
DRAWN - D. Atkins		REVISED -
CHECKED - G. Hatlestad		REVISED -
DATE - March 25, 2011		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

42" PPC I-BEAM DETAILS
UMBDENSTOCK ROAD OVER CC&P RR
STRUCTURE NO. 045-3162
SHEET NO. S11 OF S28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
361	06-00214-27-BR	KANE	87	44
		CONTRACT NO. 63595		
FED. ROAD DISTRICT 1	ILLINOIS	FED. AID PROJECT		

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